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# ABSTRACT

The apparatus comprises a crystal growing incubator having opposing first and second sides. The apparatus also includes an X-ray system which comprises an X-ray source disposed adjacent to the first side of the crystal growing incubator and an X-ray detector disposed adjacent to the second side of the crystal growing incubator. The X-ray source is configured to irradiate crystalline material grown in the crystal growing incubator and the X-ray detector is configured to detect the presence of diffracted X-rays from crystals grown in the crystal growing incubator. The apparatus preferably further comprises a positioner that positions the incubator and the X-ray system relative to each other. Also provided is a method of screening for crystalline material in its *in-situ* growth environment using the above described apparatus.

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